

These elements differ considerably from a first rough sketch. Dr. Peters believes them to be near the truth; still they give from day to day considerable anomalies, when compared with the observations.

6. *Vico's FIFTH COMET* (July 29, 1846).

This comet was also detected by Mr. Hind, at the South Villa Observatory, on the night of July 29, 1846, about 11 o'clock, two hours after its first discovery by Mr. De Vico.

"The following positions are the results of instrumental comparisons at South Villa Observatory with known stars, not far distant from the comet; but owing to the extreme faintness of this object, the observations of August 4-15 inclusive, are very uncertain:—

	Greenwich M.T.	R.A.	Dec.
	h m s	° ' "	° ' "
July 29	12 6 6	48° 53' 47"	+60° 37' 2"
30	10 17 35	48 5 34	60 42 33
31	9 56 19	47 12 6	60 48 10
Aug. 4	11 11 21	43 11 19	61 8 14
13	9 21 21	32 4 0	61 15 8
14	9 50 23	30 35 57	61 11 5
15	12 56 27	28 55 22	61 5 10
21	9 46 27	19 39 27	+60 2 8

"On July 29 and 30, we obtained some micrometrical measures with two small stars. On the 29th, at 13^h 25^m 25^s Greenwich mean time, the comet followed a star of 8.9 magnitude, 2^m 12^s.33, and was south of it 16' 17".8. This star is found in Argelander's Zones; and the apparent place for July 29, as given in Professor Schumacher's *Comet Circular*, was

$$\text{R.A. } 3^{\text{h}} 13^{\text{m}} 11\overset{\text{s}}{.}86 \quad \text{Dec. } +60^{\circ} 53' 47"\circ$$

whence the comet's place was

$$\text{R.A. } 3^{\text{h}} 15^{\text{m}} 24\overset{\text{s}}{.}19 \quad \text{Dec. } +60^{\circ} 37' 29"\circ$$

"On July 30, at 11^h 23^m 13^s mean time, the comet followed a 9th magnitude star 1^m 25^s.07, and was south of it 45".04; but we have not yet identified this star in any of our Catalogues. On this night, with great attention, and an exact knowledge of the position, the comet was just perceptible in the comet-searcher."

ELEMENTS of DE VICO'S FIFTH COMET, by Mr. A. Graham of Markree Observatory.

The observations employed were, one at Mr. Bishop's observatory, July 29; that of Paris, on August 18; and another made by Mr. Cooper, on August 31:—

Perihelion Passage, 1846, May 27.82285, Greenwich Mean Time.

π	$82^{\circ} 39' 19''$	Mean Equinox, 1846.0.
Ω	$161^{\circ} 18' 29.1''$	
i	$57^{\circ} 36' 24.2''$	
Log. q	0.1382020	

Motion Retrograde.

The errors of the elements at the time of the middle observation were in geocentric longitude $-1^{\circ} 4'$, and in latitude $+4^{\circ} 1'$. The corrections for aberration and parallax were deduced from M. Goujon's elements. The constants for August 30th, referred to apparent equinox, are,—

$$x = [9.98351] \cdot r \cdot \sin(358^{\circ} 55' 9'' + v)$$

$$y = [9.50659] \cdot r \cdot \sin(144^{\circ} 52' 34'' + v)$$

$$z = [9.99340] \cdot r \cdot \sin(86^{\circ} 5' 25'' + v)$$

Mr. Cooper's observation on August 31 gave the following position :—

Greenwich M.T.	R.A.	Dec.
August 31.46583	$2^{\circ} 54' 2''$	$+55^{\circ} 37' 7''$

7. DE VICO'S SIXTH COMET (September 23, 1846).

This faint telescopic comet was discovered by Father De Vico, in the constellation *Ursa Major*. M. Rümker has reobserved the stars of comparison, and computed the following places from the original observations :—

	Rome M.T.	R.A.	Dec.
1846 Sept. 23	$8^{\text{h}} 6^{\text{m}} 36.5^{\text{s}}$	$128^{\circ} 21' 44.5''$	$+64^{\circ} 14' 23.4''$
	$10^{\text{h}} 25^{\text{m}} 34.9^{\text{s}}$	$128^{\circ} 48' 29.5''$	$+64^{\circ} 14' 18.5''$

M. Wichmann rediscovered this comet at Königsberg.

	Königsberg M.T.	R.A.	Dec.
1846 Oct. 15	$8^{\text{h}} 39^{\text{m}} 19^{\text{s}}$	$187^{\circ} 33' 5''$	$+44^{\circ} 30' 23.3''$
	$16^{\text{h}} 7^{\text{m}} 45^{\text{s}}$	$188^{\circ} 36' 23.9''$	$+43^{\circ} 29' 6.2''$

The following observations were made at Altona and Hamburg :—

	Altona M.T.	R.A.	Dec.	No. of Obs.
1846 Oct. 21	$6^{\text{h}} 42^{\text{m}} 19.7^{\text{s}}$	$193^{\circ} 11' 40''$	$+38^{\circ} 20' 46''$	
	Hamburg M.T.			
21	$7^{\text{h}} 5^{\text{m}} 18.2^{\text{s}}$	$193^{\circ} 12' 46.1^{\text{s}}$	$38^{\circ} 19' 47.3^{\text{s}}$	2
22	$16^{\text{h}} 20^{\text{m}} 50.1^{\text{s}}$	$194^{\circ} 17' 34.3^{\text{s}}$	$36^{\circ} 57' 52.6^{\text{s}}$	12

The elements, as computed by M. Powalky at Altona, and by M. Niebour at Hamburg, prove the identity of the comet of Wicke-
mann with De Vico's Sixth Comet.